## REMARKS

The Final Office Action mailed April 8, 2009, has been received and its contents carefully noted. The pending claims, claims 3, 4, 9-10 and 12-25, were rejected while claims 5 and 7 were noted as being withdrawn from consideration. It is noted that the rejected dependent claims 16-22 and 24 depend form withdrawn claim 5. Thus, in an effort to expedite prosecution, Applicants have canceled all withdrawn claims.

Also, in a further effort to expedite prosecution, Applicants have amended independent claim 3 to place it in immediate condition for allowance. The amendments presented in claim 3 are supported by the description on page 10, lines 20-23, page 29, line 25 to page 34, line 9 and Figs. 12 and 14.

In the Office Action, claims 3, 4, 9, 10 and 12-25 are asserted to be rendered obvious under 35 U.S.C. 103 based on Sickles in view of Binoche. In recognition of the fact that Sickles' electrodes 110 and 112 are extensively exposed (e.g., fully exposed along the interior wall surface facing toward the central electrode 150), an effort was made to remedy this deficiency with Binoche. That is, it is set forth in the Office Action that:

> *"Binoche teaches an electrostatic coating spray gun comprising a barrel and an air cap having a pair of projections and a pair of insulatively shielded electrodes E1 and E2 in the interiors of the projections and having respective surfaces covered with electrically insulating material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Sickles by replacing the electrodes 110 and 112 with insulatively shielded electrodes as taught by Binoche."*

Thus, grounds for rejection is respectfully traversed. In the first instance, the degree of exposure featured in Sickles is based on the desired voltage level and desired electrical relationship within the area immediately around the central electrode. As explained in greater detail below, this relationship is removed from the claimed arrangement of the present invention and intended to be different in Sickles.

As seen from the current claim 3, there is provided an arrangement wherein a large part of each insulatively shielded electrode, except a part opposed to the pattern air port holes, is covered by the projection. Sickles is submitted to disclose an electrode wherein only a relatively small part of the electrode is in fact covered by the projection in Sickles. The reason for having such a high degree of exposure in Sickles can be seen in the following disclosure:

> "An effective way to eliminate the need for the very high voltages (used in corona discharge device) is through the use of induction charging, wherein an atomized spray is formed in the presence of a static electric field which has an average potential gradient in the range of about 5 to 30 KV per inch (column 3, lines 42-47)."

On the other hand, in the disclosed invention, a higher voltage ranging from 30 to 60 KV (30000 to 60000 V) is capable of being applied between the centralized electrode and the insulatively shielded electrodes so that air near a distal end of the centralized electrode is ionized and so that electrons are emitted from the centralized electrode (see the description of the first and fourth embodiments).

This represents a different relationship than in Sickles wherein a lower voltage is applied to the electrode. Accordingly, in Sickles, a large part of the electrode is intentionally not covered by the projection to provide the desired low voltage operation. This is entirely different both in structure and in purpose from the claim 3 arrangement.

Secondly, the Examiner attempts to rely on Binoche in an effort to remedy the deficiencies described above with reliance on electrodes E1 and E2 in Binoche (e.g., see Fig. 10 for the most detailed view of the referenced E1 and E2 electrodes). As seen from the Binoche Fig. 10, an extensive amount of each of electrodes E1 and E2 is not only exposed but extends away from its insulative base support to place the distal ends of those electrodes in close proximity to the central electrode.

Thus, the assertion that Binoche teaches adding additional insulation to the electrodes in Sickles is submitted not to be accurate when considering the degree of exposed extension in electrodes E1 and E2. Thus, taken this deficiency in the asserted combination, coupled together with the expressed desire in Sickles to minimize the voltage levels and the associated requirement to use highly exposed electrode ring surfaces to allow for the desired field

generation about the central electrode, a *prima facie* case of obviousness is submitted not to have been made out relative to claim 3.

Therefore, amended claim 3 is believed to be allowable. Furthermore, dependent claims depending directly or indirectly from allowable claim 3 are also believed to be allowable.

## CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefor are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 034206R002**.

Respectfully submitted,
SMITH, GAMBRELL & RUSSELL, LLP

/Dennis C. Rodgers/

Dennis C. Rodgers, Reg. No. 32,936
1130 Connecticut Ave., NW, #1130
Washington, D.C. 20036
Telephone: (202) 263-4300
Facsimile: (202) 263-4329

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